Office of Marine and Aviation Operations

SAFETY NEWS

From the Safety and Environmental Compliance Division

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Message from Mr. Kevin Ivey, Director, SECD

This month's issue features an informative article on life raft embarkation stations from the NOAA Small Boat Program. The Policy Spotlight section covers information on domestic violence and workplace violence from the Department of Commerce. Following the Policy Spotlight section are updated accident statistics, and a summary of recent accidents and lessons learned. Information regarding the use of back-belts is provided in the Best Practices section. In the News and Notes section, we cover a wide range of topics including use of personal protective equipment, workers' compensation, fire safety, and acknowledgement of the efforts of the Fleet Standards Office regarding requirements for Ship Specific Instructions. Also, please see the Common Interests section for information on preventing slips, trips, and falls. We hope that the information shared in this newsletter will contribute, in part, to improved safety performance. Please feel free to share your thoughts and suggestions.

Stay safe…

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PROGRAM NEWS

Life Raft Embarkation Station Ladders and Lighting

from Jeff Kingrey, Engineering Coordinator, NOAA Small Boat Program

Approved embarkation ladders and sufficient lighting are required lifesaving appliances for all NOAA ships. These ladders and lighting are to be used in conjunction with the life rafts for abandoning ship and the embarkation ladder maybe used as an alternate means of entering a rescue boat in an emergency.

An approved embarkation ladder can withstand multiple persons descending at one time. The ladder is designed to prevent twisting while evacuees are descending the ladder into the rescue platform. Location of ladder in relation to your life raft is vital. A ladder should be located at or adjacent to your life rafts stowage location, or maybe on the next deck below.

Proper stowage of the ladder will allow easy deployment and prevent the ladder from becoming unserviceable when needed in an emergency. Each ladder should be place on a raised platform to prevent salt water from penetrating the fiber or polyester ropes when not in use. A cover shall be place over the ladders to reduce the deterioration from the sun and harsh marine environment.

The Coast Guard reviews approval for ladders. Regulations for embarkation ladders on vessels is 46 CFR 199.110(f), which requires the use of a "SOLAS" rope embarkation ladder. Each embarkation ladder must be approved under approval series 160.117 or be a rope ladder approved under approval series 160.017. Each embarkation ladders length must extend in a single length from the deck to the waterline with the vessel in its lightest seagoing condition under unfavorable conditions of trim and with the vessel listed not less than 15 degrees either way.

Each embarkation station must have sufficient lighting at the station and extend into the water where the raft is deployed. This requirement can be found in regulation 46 CFR 199.110(c and d) and requires each muster station, embarkation station, alleyway, stairway, and exit giving access to a muster and embarkation station must be illuminated by lighting that supplied by an emergency source of power.

If you have any further question concerning locating these products or the proper installation and locations of embarkation ladders and lighting, contact the Fleet Inspection Team or Jeff Kingrey, NOAA Small Boat Engineering Coordinator/FIT Senior Inspector at (206)553-26480 or jeff.kingrey@noaa.gov.

POLICY SPOTLIGHT

Department of Commerce Policies on Domestic Violence and Addressing Workplace Violence

The Department of Commerce has issued the publications, “Domestic Violence Policy” (http://hr.commerce.gov/s/groups/public/@doc/@cfoasa/@ohrm/documents/content/prod01_010324.pdf) and “Addressing Workplace Violence” (http://hr.commerce.gov/s/groups/public/@doc/@cfoasa/@ohrm/documents/content/prod01_010323.pdf) .

The “Domestic Violence Policy” is in response to the President’s “Memorandum to Heads of Agencies Establishing Policies Addressing Domestic Violence in the Federal Workplace” (April 18, 2014).

The policy on domestic violence solidifies the commitment of the Department to promote a healthy and safe work environment and promotes the use of already established leave and workplace flexibilities to assist employees when they or family members are impacted by domestic violence, sexual assault, or stalking.

The policy on work place violence provides guidelines on recognizing and responding promptly and effectively to potential and/or actual incidents of work place violence.

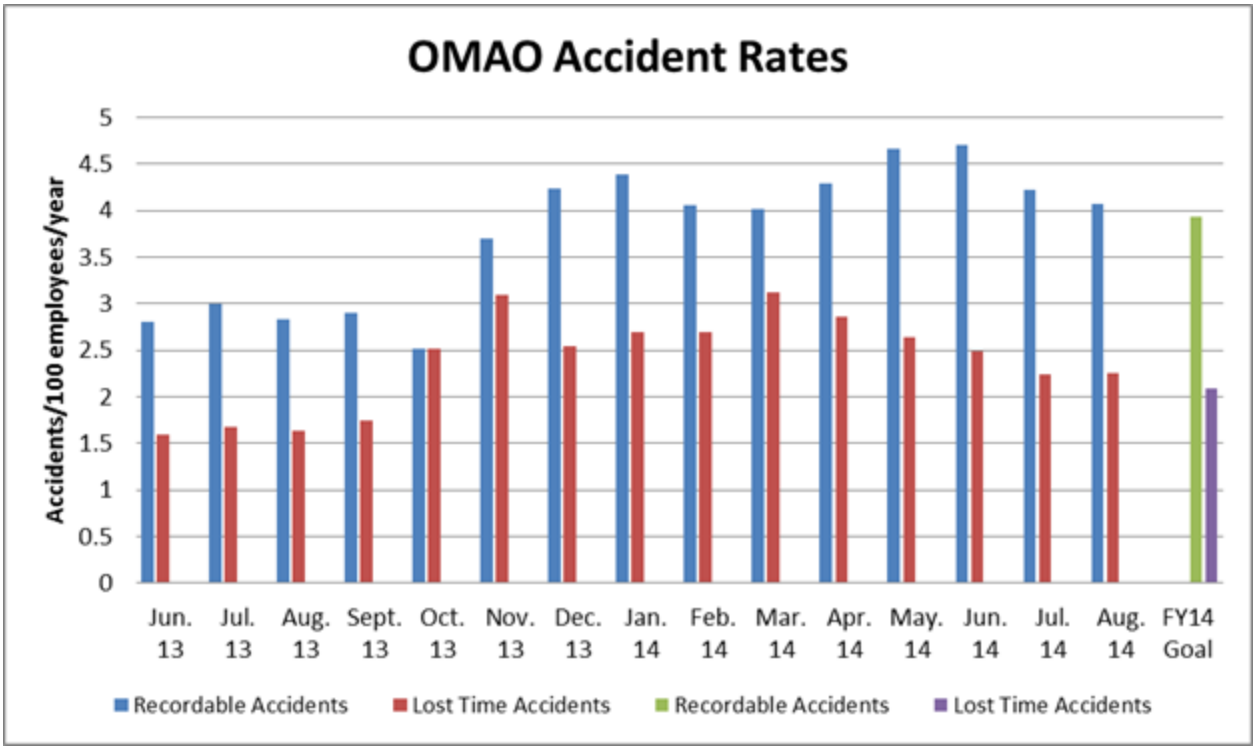
The work place violence policy states, “It is the policy of the Department to promote and provide a safe work environment. In furtherance of this policy, the Department, with and through its employees, is committed to maintaining a workplace free of violence, threats of violence, harassment, intimidation, and other kinds of disruptive behavior.

All reports of workplace violence are taken seriously and dealt with appropriately. Individuals who engage in workplace violence or other disruptive behavior may be removed from the premises and may be subject to disciplinary action (up to and including removal), criminal penalties, or both.”

The policy documents may be reviewed in their entirety via the above links.

ACCIDENT STATISTICS

Accident rates over the past 15 months and a corresponding bar graph are shown below. Accident rates are considerably higher compared to what they were a year ago, although there has been a slight downward trend over the past three months. We are currently above our goals for the year. We continue to see a significant number of contact-with incidents that lead to injury as well as slip, trip, and fall accidents. The number of injuries associated with exertion has also increased. Please make a concerted effort to pay attention to details, like body positioning for example, that is required to work safely. At the end of the day, it’s not just about the numbers. No one wants to be injured. We want everyone to leave work in the same condition as they arrived.



OMAO Annual Accident Rates*

	August 2013	August 2014	FY14 Goal
↑ Recordable Accident Rate	2.83	4.07	3.94
↑ Lost Time Accident Rate	1.63	2.26	2.09

*Accident rates are calculated based on the total number of recordable and lost time accidents that occur in the workplace compared to the total number of hours worked by all employees at that workplace. The accident rate represents the number of accidents that have occurred per 100 employees for the year.

RECENT INCIDENTS: CAUSES AND LESSONS LEARNED

This section provides a description of recent incidents that have occurred in OMAO. In many cases, more thorough follow-up investigations have been conducted and more comprehensive lessons learned have been disseminated to targeted audiences within OMAO. The information below is intended to remind us of the importance of staying safe.

Description: A crewmember was working in the bilges aboard a NOAA ship removing a bolt using a grinder when the ship rolled	**Description**: A crewmember was supervising the off-loading of supplies for a NOAA ship from a forklift. As items were

causing the grinder to come into contact with the off-hand that was being used to steady the employee. Contact with the grinder caused a laceration that required medical attention. **Causal Factors**: The grinder was not being held with both hands. The movement of the ship caused the employee to lose control of the grinder resulting in the injury. It was not reported whether or not the employee was wearing gloves. **Lessons Learned**: Proper body positioning, choosing the proper tool, and using it correctly were cited as lessons learned. In addition, use of PPE needs to be considered as does the condition of the tool being used, including machine guarding and other design safety features. It was also noted that conditions at sea will often dictate whether or not the type of work being planned can be done safely.	being removed, the load shifted and some heavy metal grating came loose and came in contact with the crewmember's hand causing a laceration that required medical attention. **Causal Factors**: The ship reported that the primary causal factor was shifting of the grating while other items were being unloaded from the forklift. The employee's attention was on the safe unloading of the specific items being handled and not on the stability of the entire load. **Lessons Learned**: Lessons learned include proper loading and securing of loads to ensure stability, use of gloves and head protection, awareness of chain reactions that could occur when off-loading equipment, and the need to maintain a safe distance from loads that have the potential to shift.

Description: Near miss incident. Crew members aboard a NOAA ship noticed the smell of burning plastic. It was determined that the starboard shore power cable was hot and leaking some fluid (apparently potting compound). Shore power was secured and the situation was investigated. **Causal Factors**: Shore power connections may have been corroded and not properly inspected prior to connecting. Shore power may have been poorly or improperly connected. Shore power cable insulation may have broken-down due to age. **Lessons Learned**: Ensure shore-power plug connectors are stored properly to minimize possible corrosion. Ensure shore power checklist is followed when connecting to shore power. Conduct routine insulation testing by taking meg-ohm readings at least annually and whenever it is suspected that cable insulation may have been damaged.	**Description**: Near miss incident. The Chief Marine Engineer aboard a NOAA ship noticed one of the shore power cables attached to the shore-side power casing/vault was becoming extremely hot. Shore power was secured and the situation was investigated. **Causal Factors**: Orientation of the shore power casing (where the shore power connections plug into the vault) creates stress on the cable, causes weakening of the cable, and allows water intrusion. In addition, the vault is constructed entirely of stainless steel to prevent corrosion but there is no ventilation inside the vault causing significant heat retention. **Lessons Learned**: The shore power connection arrangement needs to be re-designed to relieve the stress at the connection and on the cable, and to prevent water intrusion. In addition, the arrangement needs to be re-designed to ensure the shore connection casing is properly ventilated to prevent heat build-up.

Lessons Learned Safety Bulletins are routinely issued to the fleet on an as needed basis and

results of formal Accident Investigations are posted on the following web site: http://www.omao.noaa.gov/accident_investigations_lessons_learned/index.html

BEST PRACTICES

Use of Back Belts/Braces

The following is a quote from an OSHA reference provided by CDR Helen Ballantyne, USPHS, Staff Medical Officer, MOC-P, regarding engineering controls and the use of back belts/braces.

"OSHA's preferred approach to prevention of injuries and illnesses, including back injuries, is to eliminate the hazardous condition in the workplace, primarily through engineering controls. Engineering controls in situations involving lifting might include mechanical assists, adjustment of the height of the surface from which or to which material is lifted, or elimination of unnecessary bending or twisting in the task through workstation and equipment design.

When engineering controls are insufficient, administrative controls may be used. In the case of lifting, job redesign could be considered. Training of employees and their supervisors in proper lifting techniques is also important.

Back belts are not recognized by OSHA as effective engineering controls to prevent back injury. While they may be accepted by individual workers because they feel as if they provide additional support, the effectiveness of back belts in the prevention of low back injuries has not been proved in the work environment. OSHA does not forbid the use of back belts and similar devices, nor does it endorse their use."

The best ideas for improving safety come from the field. Do you have an idea to help prevent injuries? Please send it to the SECD Chief (omao.secd@noaa.gov) or to MOC safety staff at Safeship.moc@noaa.gov and we will plan to share it throughout OMAO.

NEWS AND NOTES

Kudos to Fleet Standards Office regarding establishment of Ship Specific Instructions – The following is an excerpt from an email from Robert O'Connell, Senior Executive at J.J. Keller & Associates. "During [a recent visit to MOC-A] I had the opportunity to speak to LCDR Jeff Taylor, specifically regarding Ship Specific Instructions (SSI). Jeff was explaining the system used to track, write, and archive the SSIs. As he was explaining the system and the importance of the SSIs we went over a few of them. I have 25 years of experience at J.J. Keller & Associates, Inc. dealing with organizations public, private, large, and small primarily in the safety and regulatory compliance space. During that time I have gained a deep understanding and appreciation for proper policies, procedures, and actions that result in a safer and more productive work environment.

The SSIs I reviewed fit this category of excellence. They were well written, well thought out, and most importantly, incorporated document control measures around development responsibility, and currency of information. You should be proud of the work that is being done in support of the SSIs. These are important documents that aid and assist workers in accomplishing their mission in a safe and efficient manner. The construction of these documents allow for a consistent, clear, up-to-date format that can easily be accessed and reviewed."

Use of Personal Protective Equipment – NOAA Ship *Okeanos Explorer* (EX) reports they have reached the two year mark with no injuries in the Deck Department related to lack of PPE. The full face respirator implementation has proven to be a great success by eliminating eye, face and respiratory injury.

Workers' Compensation – Based on recent guidance from NOAA's workers' compensation specialist, the Department of Labor (DOL) is the final arbiter on workers' compensation cases. During the initial adjudication period, NOAA can only ask that the case be reviewed by DOL based on submitted evidence. At no time can NOAA mandate that DOL accept a case or compensate an employee. When making case decisions, DOL reviews all evidence received and gives great weight to doctor's statements about the causes of injuries. In addition to accurately describing and reporting the nature of the incident, medical documentation from a licensed physician is needed that clearly connects a diagnosed medical condition to the work performed.

National Fire Prevention Week - Sponsored by the National Fire Prevention Association (NFPA), National Fire Prevention Week is October 5–11, 2014. The NFPA promotes fire prevention and safety during the week and all year long. The 2014 theme, "Working Smoke Alarms Save Lives – Test Yours Every Month!" focuses on the importance of having smoke alarms in your home and testing them every month.

NOAA Annual Safety Training – NOAA Safety and Environmental Compliance Office (SECO) issued an email dated August 6, 2014, to all hands requiring completion of NOAA annual safety awareness training. Completion of training is being tracked and reported to NOAA leadership monthly. Please ensure all slides are viewed in order to get full credit for completion of the course. A link to access the course can be found on the SECO website: https://sites.google.com/a/noaa.gov/seco/ . As of Sept 18, 2014, OMAO is 42% complete.

TERM OF THE MONTH

Accident Prevention – is the effective control of the contributing causes of accidents, namely stopping unsafe acts and correcting unsafe conditions. Most accidents are the result of a chain of events rather than a single event. Many of the events are human-factor related usually brought about by organizational influences, like policy and planning, inadequate supervisory control, proper on-the-job training for example, and adverse environmental-related factors including fatigue. Interrupting the error chain at any point along the chain prevents the accident or its severity.

COMMON INTERESTS

Preventing Slips, Trips, and Falls

Did you know that slips, trips, and falls are second only to vehicle accidents in causing personal injury? On stairways alone, falls result in almost two million disabling injuries yearly. There are thousands more minor injuries caused by slips, trips, and falls each year. Most alarming of all is the fact that industrial falls cause more than 1,000 deaths annually. According to the Bureau of Labor Statistics, approximately 219, 630 non-fatal slip, trip, and fall-type injuries occurred in the private sector in calendar year 2012.

During the second week of June, the Department of Commerce's Office of Occupational Safety

& Health (OOSH) participated in the National Safety Council's slip, trip, and fall awareness week to raise attention to these types of injury causes. The Department of Commerce's number one type of injury is directly related to slips, trips, and falls, with 514 having occurred in calendar years 2011–2013, resulting in $1,019,242 in related medical and compensation costs.

Slips occur when there is too little friction between a person's feet and the walking surface. Ice, oil, water, cleaning fluids, and other slippery substances are the most obvious causes of slips. However, the flooring may be inappropriate—perhaps it is a slick material—or a person may not be wearing proper shoes. To prevent slips, avoid if possible walking in areas that pose slipping hazards. Always promptly clean up spills. If flooring is a problem, replace it or coat it with a non-slip surfacing material.

Trips occur when a person's foot contacts an object and they are thrown off balance. The main cause of tripping is obvious: Any time something is in a walkway, it could cause someone to trip. Another culprit is an object that projects into the walkway – perhaps from material stored low on a shelf. Poor lighting and uneven walking surfaces can also cause tripping. To prevent trips, keep objects or obstructions out of the way. Repair uneven flooring and install proper lighting.

Falls can be caused by a number of things. Slips and trips frequently result in a fall. Falls also occur for other reasons, like improper use of ladders and scaffolding. Falls also happen when people climb objects without using fall protection equipment. Don't risk serious injury by taking shortcuts. If you are working on a ladder, scaffold, or other elevated platform, make sure you know the requirements for using them safely. Always use fall protection equipment when it is required.

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Safety . . . our mission depends on it